REMARKS/ARGUMENTS

The Examiner is thanked for the clarity and conciseness of the previous Office Action, and for the citation of references, which have been studied with interest and care.

This Amendment is in response to the Office Action mailed August 24, 2005. In the Office Action, claims 1, 4-12, 15-20, 23-28, and 31-38 stand rejected under 35 U.S.C. § 103 (a).

Applicant has amended the claims to further clarify the embodiments of the invention. Attached herewith is a Request for Continued Examination (RCE).

Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Rejection Under 35 U.S.C. § 103

Claims 1, 4-12, 15-20 and 23-27 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious over U.S. Patent No. 5,790,130 issued to Gannett (hereinafter Gannett) in view of U.S. Patent No. 6,779,098 issued to Sato et al. (hereinafter Sato).

Claims 28 and 31-38 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious over Gannett in view of Sato and further in view of U.S. Publication No. 2004/0236877 issued to Burton (hereinafter Burton).

Applicant respectfully submits that amended independent claims 1, 12, 20, and 28 are not rendered obvious by Gannett in view of Sato because neither Gannett nor Sato teach or suggest the limitations of Applicant's amended independent claims 1, 12, 20, and 28.

As stated in MPEP §2141.03:

> A prima facie obviousness rejection requires the three basic criteria be met. First, there must be some teaching, suggestion, or motivation, either in the references of themselves, or in the knowledge generally available to one skilled in the art, to modify the reference or to combine the references. Second, there must be some reasonable expectation of success. Finally, the prior art reference, or references when combined, *must teach all the claim limitations.* The teaching or suggestion to make the claimed combination and the reasonable expectation of

> success must both be found in the prior art, *and not based on the Applicant's disclosure*. MPEP §2141.03. (Emphasis added).
>
> MPEP §2141.03 further warns that *impermissible hindsight must be avoided.*

Furthermore, with regards to obviousness, as aptly stated by the Federal Circuit in *In re Kotzab*, 55 U.S.P.Q.2D (BNA) 1313, 1316-1317 (Fed. Cir. 2000):

> Most if not all inventions arise from a combination of old elements. Thus every element of a claimed invention may often be found in the prior art. *However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention.* Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant. (Emphasis added).

Applicant respectfully submits that the proposed combination of Gannett and Sato, as proposed by the previous Office Action, does not teach or suggest the claim limitations of Applicant's amended independent claims 1, 12, 20, and 28.

Utilizing amended independent claim 1 as an example, Applicant's amended independent claims 1, 12, 20, and 28 generally recite an image signal processor comprising: a local memory to store data...*a memory command handler circuit including a plurality of memory address generators*, each memory address generator to generate a memory address to a local memory and to interpret a command to be performed on the data of the local memory located at the memory address to aid in image processing tasks...and...*a plurality of cluster communication registers coupled to the plurality of the memory address generators, the plurality of cluster communication registers storing data to be sent to the local memory and commands to be performed by the memory address generator.*

Applicant respectfully submits that Gannett does not teach or suggest the limitations of Applicant's amended independent claims.

To begin with, in stark contrast to Applicant's *memory command handler circuit* of Applicant's amended independent claims 1, 12, 20, and 28, the software-implemented texture

interrupt managing daemons (TIMs)170, 172, and 174 of Figure 3A, as set forth by the Office Action, are not at all analogous.

Applicant respectfully submits that these texture interrupt managing daemons (TIMs) 170, 172, and 174 do not teach or suggest Applicant's limitations related to a *memory command handler circuit* including a plurality of memory address generators in which each memory address generator generates a memory address to the local memory and interprets a command to be performed on the data of the local memory located at the memory address to aid in image processing tasks.

Instead, as set forth in column 8, lines 50-54 of Gannett:

"The invention relates to a texture interrupt managing daemon (TIM) 150 that is an independent, stand alone software process that runs on the processor of the host computer, unbeknownst to the user...The TIM 160 of the present invention communicates with each of the graphics hardware drivers over a distinct socket..." (Emphasis added).

Thus, the TIMs of Gannett are independent stand alone software processes that run on the processor and are independent of the image processor of Gannett, i.e., the hardware device 150. Thus, these TIMs are not part *of a memory command handler circuit of an image processor*. Instead, the TIM 160, 170, 172, 174 are located outside and are distinct from the respective graphic hardware devices 150, 164, 166, and 168 and are in fact software processes.

This is in stark contrast to Applicant's amended independent claim limitations related to *a hardware-based memory command handler circuit located within the image processor itself.*

Therefore, because Gannett does not teach or suggest a memory command handler circuit, Applicant respectfully submits that amended independent claims 1, 12, 20, and 28 are not rendered obvious by Gannett and should be allowed.

Further, as the Office Action recognizes, nowhere does Gannett teach or suggest *a plurality of cluster communication registers coupled to the plurality of the memory address*

generators...the plurality of cluster communication registers storing data to be sent to the local memory and commands to be performed by the memory address generator.

Therefore in order to attempt to recreate Applicant's claimed invention, the Office Action proposes combining Gannett with Sato. However, as previously discussed, Gannett does not teach or suggest the limitations of Applicant's independent claims 1, 12, 20, and 28, in the first place.

Moreover, Applicant respectfully submits that Sato does not teach or suggest the limitations for which it is set forth by the Office Action. Particularly, the Office Action utilizes Sato as allegedly teaching a plurality of cluster communication registers coupled to a plurality of memory address generators in which the plurality of cluster communication registers store data to be sent to the local memory and commands to be performed by the memory address generator.

In contrast thereto, looking at the citation of column 1, lines 57-67 and column 2, lines 1-6 of Sato in view of Figure 1 and Figure 4, utilized in this Office Action, this citation generally relates to a memory system capable of a plurality of simultaneous accesses...including...a plurality of address generators 21 and 22 (shown as part of address generating unit 2) connected to the memory system, each of which generates an address for accessing the memory system...an addressing register 23 (shown as part of address generating unit 2) connected to the plurality of address generators 21 and 22...a data processing unit 1 connected to the memory system and providing an operation process to data read from the memory system... a control unit 5 connected to the addressing register (address generating unit 2), the plurality of address generators 21 and 22, and the data processing unit 1, and controlling operations in the plurality of address generators and the data processing unit 1...and wherein the plurality of address generators are capable of generating addresses from a common value in one address register of the plurality of address registers to simultaneously read data designated by the generated addresses from the memory system.

As shown in the Sato patent, as referenced by the previous Office Action, and shown in the figures, a data processing device having a data processing unit that can simultaneously receive double precision data as input utilizing address generators is disclosed by Sato. However,

Applicant respectfully submits that this does not teach or suggest a plurality of cluster communication registers storing data to be sent to the local memory *and commands to be performed by the memory address generators*. Applicant respectfully submits that there is no teaching or suggestion in Sato of cluster communication registers *to store commands to be performed by the memory address generators*. Applicant respectfully submits that this is not quite simply shown by Sato.

Therefore, Applicant respectfully submits that Gannett in combination with Sato, does not teach or suggest Applicant's amended independent claims 1, 12, 20, and 28. Applicant respectfully submits that these claims should be allowed and passed to issuance. Further, Applicant respectfully submits that the dependent claims therefrom also be allowed and passed to issuance.

Conclusion

In view of the remarks made above, it is respectfully submitted that pending claims 1, 4-12, 15-20, 23-28, and 31-38 define the subject invention over the prior art of record. Thus, Applicant respectfully submits that all the pending claims are in condition for allowance, and such action is earnestly solicited at the earliest possible date. The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application. To the extent necessary, a petition for an extension of time under 37 C.F.R. is hereby made. Please charge any shortage in fees in connection with the filing of this paper, including extension of time fees, to Deposit Account 02-2666 and please credit any excess fees to such account.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: 10/14/2005 By _____

Eric T King
Reg. No. 44,188
Tel.: (714) 557-3800 (Pacific Coast)

Attachments

12400 Wilshire Boulevard, Seventh Floor
Los Angeles, California 90025

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